

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 9, 10, 12, 14-15, 31-32, 38-39 are presently active in this case, Claim 9 amended, and Claim 39 added by way of the present amendment.

In the outstanding Office Action, Claims 9, 10 and 15 were rejected under 35 U.S.C. § 103a as being unpatentable over U.S. Patent Publication 2005/015,0866 to O'Donnell et al. in view of JP02-054780 to Kosuge; Claim 12 was rejected under 35 U.S.C. § 103a as being unpatentable over O'Donnell et al. and Kosuge, and further in view of U.S. Patent No. 4,357,387 to George et al.; Claims 31 and 38 were rejected under 35 U.S.C. § 103a as being unpatentable over O'Donnell et al., and Kosuge, and further in view of U.S. Patent No. 4,310,390 to Bradley et al. and U.S. Patent No. 6,120,955 to Tokutake et al.; Claim 14 was rejected under 35 U.S.C. § 103a as being unpatentable over O'Donnell et al., Kosuge, Bradley et al. and Tokutake et al., and further in view of U.S. Patent No. 5,534,356 to Mahulikar et al.; Claim 32 was rejected under 35 U.S.C. § 103a as being unpatentable over O'Donnell et al., and Kosuge, and further in view of U.S. Patent No. 5,892,278 to Horita et al.; and Claims 9, 10 and 12 were provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over Claims 5, 17-20 of U.S. Patent Application 10/773,245 in view of O'Donnell et al. and Kosuge.

Turning now to the merits, in order to expedite issuance of a patent in this case, Applicants have amended Claim 9 to clarify the patentable distinctions of the present invention over the cited references. Specifically, amended Claim 9 recites an internal member of a plasma processing vessel, the internal member including a base material and a film formed on a surface of the base material. The film includes a main layer formed by

thermal spraying of ceramic and a barrier coat layer formed of ceramic including an element selected from the group consisting of B, Mg, Al, Si, Ca, Cr, Y, Zr, Ta, Ce and Nd. Also recited is that the barrier coat layer is an intermediate layer formed between the main layer and the base material, and that the barrier coat layer is a thermally sprayed film and at least parts of pores inside the *barrier coat layer are sealed by a resin provided at a lower portion of the barrier coat layer including a surface contacted with the base material and not including a surface contacted with the main layer.*

Support for the amended feature of Claim 9 is provided in Applicants' original specification at least at paragraphs [0046], [0062]-[0063] and [0068]. Further, paragraph [0068] of Applicants' specification explains that it is preferable to provide the seal portion within the film, but not on the surface of the film in order to avoid degradation of the seal and which can cause forming air pores in the film again.

The Office Action admits that O'Donnell et al. does not teach the claimed sealing feature, but cites the new reference to Kosuge as correcting this deficiency. Specifically, the Office Action takes the position that the substrate 10, sacrificial corrosion layer 11, resin layer 12 and ceramics sprayed layer 13 of the Kosuge correspond to the claimed base material (e.g. 71), barrier coat layer (e.g. 79), resin (e.g. 79a) and main layer (e.g. 78), respectively, as recited in Claim 9 and disclosed in Applicants specification. Applicants' submit, however, that the resin 79a of amended claim 9 is provided at *a lower portion of the barrier coat layer (e.g. 79) including a surface contacted with the base material (e.g. 71) and not including a surface contacted with the main layer (e.g. 78).* By contrast, in Kosuge, the resin layer 12 is formed *between* the sacrificial corrosion layer 11 and the ceramics sprayed layer 13.

Therefore, the combination of O'Donnell et al. and Kosuge does not disclose that "the barrier coat layer is a thermally sprayed film and at least parts of pores inside the barrier coat

layer are sealed by a resin provided at a lower portion of the barrier coat layer including a surface contacted with the base material and not including a surface contacted with the main layer,” as recited in amended Claim 9. Moreover, it would not be obvious to modify the primary cited references to provide this feature. As noted above, it is the present inventors who recognized that it is preferable to provide the seal portion within the film, but not on the surface of the film in order to avoid degradation of the seal and which can cause forming air pores in the film again. The cited references do not suggest this advantage.

Further, Applicants note that the secondary references to George et al., Bradley et al., Tokutake et al., Mahulikar et al. and Horita et al. are cited for teachings in dependent claims and do not correct the deficiencies of O'Donnell et al. and Kosuge as distinguished above.

For the reasons discussed above, Claim 9 patentably defines over the cited reference. As Claims 10, 12, 14, 15, 31, 32 and 38, directly or indirectly depend from claim 9, these claims also patentably define over the cited references for the reasons discussed above.

Nevertheless, new Claim 39 is added to further distinguish over the cited references.

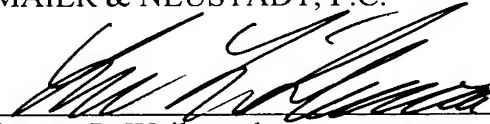
Specifically, the feature of newly added claim 39 is performing a blast process on the surface between the barrier layer (e.g. 79) and the main layer (e.g. 78) to increase adhesivity therebetween. This feature is neither disclosed nor suggested by Kosuge since the resin layer 12 is formed between the sacrificial corrosion layer 11 and the ceramics sprayed layer 13 of Kosuge.

Finally, with respect to the *provisional* rejection of Claims 9, 10 and 12 for obviousness double patenting over Claims 5, 17-20 of co-pending Application No. 10/773,245 (US PG Pub. No. 2005/0103275), Applicants submit that the amendments to Claim 9 overcome the double patenting rejection for reasons similar to the above discussion. Alternatively, Applicants wish to address this rejection at such time as one of the co-pending applications issues as a patent and the rejection becomes non-provisional.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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